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The Effects of Selected Personal and Professional Factors on Nurses' Perceptions of Self-health

Constance L. Peterson
South Dakota State University

THE AFFECTS OF SELECTED PERSONAL AND PROFESSIONAL FACTORS ON NURSES' PERCEPTIONS OF SELF-HEALTH

by

Constance Leigh Peterson

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THE AFFECTS OF SELECTED PERSONAL AND PROFESSIONAL FACTORS ON NURSES' PERCEPTIONS OF SELF-HEALTH

This thesis is approved as a creditable and independent investigation by a candidate for the degree Master of Science, and is acceptable for meeting the thesis requirements for this degree. Acceptance of this thesis does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

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Abstract (approximately 150 words)

The purpose of this study was to determine the affects of selected personal and professional factors on nurses' perceptions of self-health as evaluated by responses to a questionnaire designed for this study. A modification of the Health Belief Model, titled the Health Perception Model, served as the conceptual model for the study.

The sample consisted of 121 registered nurses employed at a 515-bed hospital in a rural Midwestern state. A descriptive correlational design was used.

The study posed thirteen null hypotheses predicting the influence of the variables (concern about health matters in general, subjective estimate of susceptibility to illness, age, presence of diagnosed illness, presence of symptoms, positive health activities, social factors, shift rotation, job satisfaction, type of nursing care unit, length of experience on specific unit, length of nursing experience, and professional commitment) on nurses' perceptions of self-health. The statistical test was the analysis of variance. The null hypotheses regarding subjective estimate of susceptibility to illness, presence of symptoms, presence of disease, and positive health activities were rejected at the .05 level of significance.

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CHAPTER 1

Statement of the Problem and Objectives of the Study

Introduction

In recent years, there has been an increasing interest in illness behavior among workers. Rotating shift schedules, psychological distress, and physiological dysfunctions have all been implicated as contributors to employee illness. However, the extent to which these conditions are associated with illness may depend on the perceptions of the individual. For example, if a condition is perceived as being negative, a worker, in this case a nurse, may identify herself as being ill. Conversely, if a nurse does not perceive a stimulus as being negative, then she will not identify herself as being ill.

A nurse's perception of her health is important from the employer's perspective, because a nurse who considers herself ill may be more likely to absent herself from work. The key to this statement is "considers herself", for it is the nurse's perception of her health, not her actual health status, that will determine her subsequent behavior.(1) The factors that influence the nurse's perception of self-health thus become an interesting area for study.

Statement of the Problem

The problem under investigation in this study is: "To what extent do selected personal and professional factors affect nurses' perceptions of self-health?"

Importance of the Problem

Research related to this problem is important because, as indicated by Maslow in 1954, health needs must be met before an individual can perform optimally.(2) If the nurses' perceptions of self-health are being adversely affected by certain personal and professional factors, their performance may also be negatively affected. In view of the fact that the health and very lives of many people may depend upon the nurses' ability to function effectively, the risk is too great to take.

Absenteeism due to illness also affects the continuity of health care given to patients and presents a problem for the employer if nurses unacquainted with the patient unit must fill in for the ill nurse. Therefore, it would seem important to be aware of the affects of selected personal and professional factors on nurses' perceptions of self-health.

Objective of the Study

The objective of this study is to determine:

The affects of selected personal and professional factors on nurses' perceptions of self-health.

Definition of Terms

The following terms used in this study are defined as:

1. Nurse: A graduate of a two, three, or four-year nursing program and licensed to practice as a registered nurse. In this study, the term nurse is used synonymously with the term registered nurse. Since women comprise the majority of the nursing population, the female gender will be used to refer to both male and female nurses for the remainder of the study.

2. Perception of Self-Health: The degree to which a nurse considers herself to be healthy. In this study, perception of self-health was measured by the nurses' responses to a question designed to measure this variable (Appendix A, question 36).

3. Health Perception Model: A conceptual model developed to explain factors affecting nurses' perceptions of self-health. The model incorporated: personal factors, professional factors, and nurses' perceptions of self-health.

4. Personal Factors: Selected variables present in nurses' personal lives which may affect their perceptions of self-health. In this study, personal factors included:

A. Concern About Health Matters in General: The degree to which a nurse considers her health to be of importance. In this study, concern about health matters in general was measured by the nurses' responses to questions designed to measure this variable (Appendix A, questions 19,

21, and 32).

B. Subjective Estimate of Susceptibility to Illness: The degree to which a nurse considers herself to be vulnerable to a decline in her present health. In this study, the subjective estimate of susceptibility to illness was measured by the nurses' responses to questions designed to measure this variable (Appendix A, questions 30 and 34).

C. Presence of Diagnosed Illness: The presence, during the six months prior to the study, of a disease/illness identified as such by a medical physician. In this study, the presence of a diagnosed illness was measured by the nurses' responses to an illness/disease checklist (Appendix A, part three of the questionnaire).

D. Presence of Symptoms: The presence, during the six months prior to the study, of a change in the physical or mental state of the individual that she is able to recognize. In this study, the presence of symptoms was measured by the nurses' responses to a symptom checklist (Appendix A, part three of the questionnaire).

E. Positive Health Activities: The degree to which a nurse practices activities reported to have a beneficial influence on her health. In this study, the practice of positive health activities was measured by the nurses' responses to questions designed to measure this variable (Appendix A, questions 17, 18, 21, 26, and 31).

F. Social Factors: The degree to which nurses are

able to fulfill their family/social responsibilities, which is influenced by the number of family obligations present. In this study, social factors were measured by the nurses' responses to questions designed to measure this variable (Appendix A, questions 3, 4, 22, 23, and 29).

5. Professional Factors: Selected variables present in the nurses' professional lives which may affect their perceptions of self-health. In this study, professional factors included:

A. Shift Rotation: A method of work assignment characterized by working one particular shift (for example 7:00 a.m. to 3:00 p.m.) for a specified period of time, and then switching to another shift for a particular time period (for example 3:00 p.m. to 11:00 p.m.). In this study, some of the nurses alternated ("rotated") between the 7:00 a.m. to 7:00 p.m. shift and the 7:00 p.m. to 7 a.m. shift. This was measured by the nurses' responses to questions designed to measure this variable (Appendix A, questions 15, 16, and 27).

B. Job Satisfaction: The degree to which nurses are happy with their present employment. In this study, job satisfaction was measured by the nurses' responses to questions designed to measure this variable (Appendix A, questions 24, 28, 33, 35, and 37).

C. Type of Nursing Care Unit: A designation of the patient care area, in terms of "critical" versus

"non-critical" patient status, in the hospital where the nurse is employed. Critical care areas consisted of the emergency room, the intensive care unit, the cardiac care unit, the pediatric intensive care unit, the high-risk maternity unit, and the neonatal intensive care unit. The areas specified as non-critical were the dialysis unit, the pediatric unit, the medical-surgical units, the adolescent unit, and the post-partum/nursery unit. In this study, the type of nursing care unit was measured by the nurses' responses to a question designed to measure this variable (Appendix A, question 5).

D. Professional Commitment: The degree to which nurses identify with the professional role of the nurse. In this study, professional commitment was identified by membership in professional organizations, subscription to professional journals, and attendance at professional educational meetings as measured by the nurses' responses to questions designed to measure this variable (Appendix A, questions 10, 11, 12, and 13).

Organization of the Thesis

This thesis is organized as follows:

1. Chapter 1 consists of introductory material, a statement of the problem, the objective of the study, and the definition of terms.

2. Chapter 2 reviews selected pertinent literature, a conceptual model, independent and dependent variables, and the research hypotheses.

3. Chapter 3 presents the methodology, research approach, sample, research tool, and procedures for analysis of data.

4. Chapter 4 reports the analysis of the research findings.

5. Chapter 5 includes a summary of the research findings, implications and limitations of the study, and recommendations for further research.

CHAPTER 2

Review of the Literature

This chapter presents a review of pertinent literature, a conceptual model, dependent and independent variables, and the research hypotheses. For the purpose of clarity, the review of the literature will be presented in two major sections: (1) studies that pertain to personal factors, and (2) studies that pertain to professional factors.

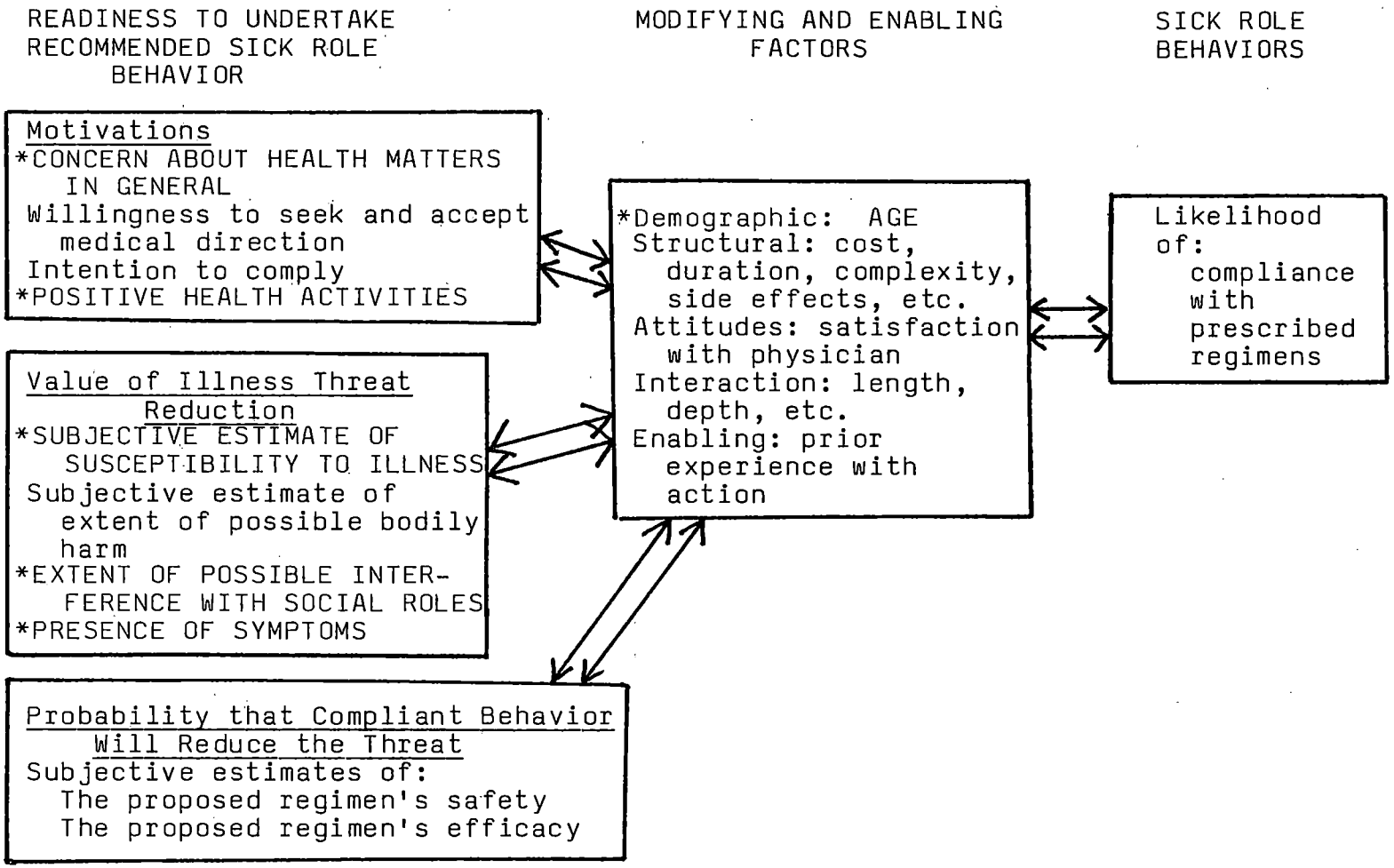
Review of Selected Literature: Personal Factors

Health Belief Model

The "Health Belief Model", as proposed by Rosenstock for understanding compliance behavior in patients, provided a number of concepts relevant to the conceptual framework used for this study.(3)

Rosenstock's Health Belief Model (Figure 1) consists of three concepts. These concepts attempt to explain the correlations between specific health beliefs of patients and their subsequent behavior. In other words, it explains how a patient's perception may affect the way he complies with the treatment as planned by the nurse and/or physician.

The three concepts included in the Health Belief Model are: (1) readiness to undertake recommended sick role behavior, (2) modifying and enabling factors, and (3) sick role behavior.(4)



*concepts used in the present study

Figure 1

Health Belief Model

1. Readiness to undertake recommended sick role behavior: This concept includes several variables which attempt to describe the degree to which a patient is prepared to comply with the treatment regimen. Included in these variables are: (1) concern about health matters in general, (2) positive health activities, (3) subjective estimate of susceptibility to illness, (4) presence of symptoms, and (5) social roles.

2. Modifying and enabling factors: This concept includes several variables which may alter, or modify, the readiness to undertake the recommended sick role behavior. Age is included as a modifying or enabling factor.

3. Sick role behaviors: This concept consists of variables which make up the actual compliance behavior shown by the patient.[5,6,7,8]

Positive Health Activities

In addition to factors in the Health Belief Model which may influence the perception of illness is regular physical exercise. This is reflected in a study by Heinzelmann and Bagley. In this study, 381 male volunteers aged forty-five to fifty-nine were randomly assigned to an eighteen-month exercise program or a control, no-exercise group. Program participants exercised for one hour, three times a week, and data were collected at regular three to four-month intervals on all subjects. At the conclusion of the eighteen-month program, the participants reported positive effects in many

health related aspects of their lives. Almost sixty percent of the 108 exercise participants who complied with the requirements of the study reported a significant improvement in their work performance. Exercise participants also reported increased stamina and energy, more positive feelings about their health, greater ability to deal with stress and tension, and a more relaxed sleep. In general, subjects assigned to the exercise group demonstrated significantly greater optimism about their health and a feeling of decreased vulnerability to specific illness threats.(9)

Physical fitness was also correlated with aspects of health in a study by Folkins, et al. This study utilized a sample of students at a junior college who participated in thirty-two weekly sessions of jogging. A control group of students participating in archery or golf sessions was used for comparison purposes. Physical fitness was measured by the amount of time it took a subject to run 1.75 miles. Psychological fitness was measured in terms of four checklists. The Adjective Checklist measured self-confidence and personal adjustment, the Multiple Affect Adjective Checklist was used to measure anxiety and depression, and two, nine-point, self-rating scales were used to evaluate the subjects' ability to handle work. The findings indicated that physical fitness improved for both men and women subjects, but significant psychological improvements occurred only for women. The authors explain this phenomenon by the fact that the

women were in poorer physical and psychological condition at the beginning of the study. Conclusively, then, the greater the physical improvement, the greater the corresponding psychological improvement.(10)

A study by Hautman and Harrison reported a connection between physical fitness and perceptions of health. In their study, a sample of one hundred middle income Anglo-Americans living in San Diego, California was selected for interviews. Subjects were asked to rate their health as good, fair, or poor and define what they meant by their rating. Absence of sickness was the most frequently mentioned dimension of health. Diet, exercise, and vitamins ranked as the most predominant measures taken for health maintenance. Over fifty percent of the respondents mentioned exercise as a means of staying healthy, while seventy-five percent focused on a balanced diet as a health maintenance measure. Ninety-three percent of the subjects believed that poor eating habits caused illness.(11) Thus, according to this study, an individual who exercises regularly and consumes a balanced diet might perceive himself to be more healthy than an individual who does not participate in these activities.

In a similar study on diversities in conceptions of health, Bauman also reported a variety of individual interpretations of the word "health." Her sample consisted of 201 patients with one or more chronic illnesses and 262

medical students. Subjects were asked to determine what was meant by "health" or being "physically fit." Three types of responses were noted. The first response referred to a feeling of well-being. The second response identified health with the absence of symptoms of illness, and the third set of responses were oriented toward "what a person who is in good physical condition should be able to do." Good physical condition was variably defined in terms of athletic prowess and the ability to fulfill role obligations.(12)

Social Factors

The second personal factor which has been purported by the literature to affect self-perception of health is that of social aspects. Tobin and Neugarten studied this variable among the elderly. In their study, a stratified, random sample of persons aged 50-70 residing in Kansas City were selected and interviewed about many aspects of their life patterns, attitudes, and values. Five scales were then used to measure the subjects' social patterns. The Interaction Index consisted of an investigator judgment based on the amount of time each day the subject spent in social interaction with others. The Social Life Space measure represented the subject's estimate of the number of interactions with different people he engaged in per month. The Role Count consisted of the number of social roles in which the subject interacted with others. Perceived Life Space represented the subject's perception of his present interaction

rate as compared with that remembered from age 45. Psychological well-being, or "adjustment", was measured by Life Satisfaction Ratings. The results of the study indicated that the Interaction Index, Social Life Space, and Role Count were all positively related to Life Satisfaction.(13) Therefore, social interaction was positively associated with life satisfaction for all ages included in the study population.

In a study by Geertsen and Gray on mothers and sick role behavior, another aspect of social factors and health was considered. The data in this study was gathered by means of a statewide survey of mothers with at least one child under five years of age. Each respondent was asked a series of questions designed to measure inclination to adopt the sick role and the family orientation of each subject. A high familism score indicated that the subject perceived the family's needs to be of higher priority than the individual's own needs, that each individual should place family interests above his own, and that family members were expected to provide assistance in time of need. The results indicated that mothers with a high familism rating showed a significantly higher inclination to adopt the sick role than mothers with a low familism rating. Mothers with two or more preschool children exhibited a lower inclination to adopt the sick role than did the other mothers.(14) These findings contend that individuals may not adopt the sick role, even when appropriate, if role obligations do not enable them to do so.

These results were supported in a prospective study by Woods. She concluded that the number of illness episodes women experience is a function of the compatibility of a woman's other roles with being ill and with the support available for her for performing her roles.(15)

In summary, there are many personal factors which have been supported by the literature reviewed here as influencing factors in the perception of health. Regular exercise, consumption of a balanced diet, the presence of illness symptoms, the ability to maintain social interaction, and the magnitude of role obligations make up these influences.

Review of Selected Literature: Professional Factors

Shift Rotation

A second category of factors indicated by the literature as influencing the perception of health is that of the professional factors. One professional factor widely indicated by the literature as influencing the perception of self-health is that of shift rotation. Literature related to the affects of shift rotation on health, uses the term "circadian" frequently. This term is derived from the Latin word "circe dies" meaning "about a day".(16) Thus, a circadian rhythm is one which completes its cycle in approximately twenty-four hours. Circadian rhythmicity is demonstrated in many physiological processes including urinary excretion of calcium and phosphate,(17) sodium and potassium

excretion,[18,19,20] the volume of urine,[21,22,23] number of circulating eosinophils,[24] body temperature,[25] heart rate,[26] ventilatory capacity,[27] and cortisol secretion.[28]

In view of the variety of body functions that adhere to a circadian rhythm, the question arises of how these processes affect the health of nurses. Rotation of shifts requires continuous physical adjustments. This phenomenon was addressed in a study completed by Van Loon, who studied the effects of shift work on body temperature curves in an attempt to determine the time needed for adaptation to shift changes to occur. He made observations on three young men for an eight-week period. The subjects were tested for the collection of baseline information during one week of day shift working (8:00 a.m. until 5:15 p.m.). This period was followed by a five-week period of night shift work (10:30 p.m. until 7:30 a.m.), a seven-week break, one more week of night shift work, and a final week of day shift work. Oral temperatures were taken during work at four-hour intervals: 3:30 a.m., 7:30 a.m., 12:00 p.m., 3:30 p.m., 7:30 p.m., and 11:30 p.m. The baseline day shift body temperature showed a "normal" curve; that is, the temperature was lower in the early morning, rose thoughout the day, and reached a maximum in the late afternoon. Night shift temperature curves were significantly more platykurtic than the "normal" day shift temperature curves. The adaptation of the body temperature curve to the platykurtic configuration in the

beginning of the night shift took "some" days each week to complete, while the normal curve was exhibited immediately upon return to day shift work. This indicated that the subjects' time off during the weekend was sufficient to effect a return to the normal sleep-wake pattern.(29)

The alteration of the normal circadian body temperature curve following a reversal of activity/sleep schedules was also studied by Sharp. He observed six men and women who had suddenly reversed their activity/sleep schedules. The subjects retired at 10:30 p.m. and got up at 7:00 a.m. during a four-day control period. They then reversed their routines by retiring at 10:30 a.m. and awaking at 7:00 p.m. This reversed schedule was followed for a fourteen-day period. Axillary temperatures were recorded every three hours each day prior to the reversal and on alternate days following the reversal. It was found that the circadian temperature curve required three to four days for adaptation to the platykurtic curve to occur following the sleep-wake inversion. Returning the rhythm back to its original "normal" configuration at the conclusion of the experiment also required three to four days.(30)

A study by Thiis-Evensen considered the correlations between shift work and employee illness. In this study, questionnaires and interviews were used to collect information on over fourteen thousand Scandinavian laborers over a six-year period. Approximately six thousand subjects were

workers on the day shift, while about eight thousand were evening and night shift workers. The data obtained from the study indicated that the absenteeism of day workers exceeded that of the evening and night shift workers by about one percent. When it was taken into consideration that the group of day workers included past shift workers and correction factors were applied, however, analysis indicated that there was no significant difference in general health among the three shifts of workers. The results of analysis also demonstrated that there was a higher frequency of nervous and digestive complaints among shift workers and former shift workers, as opposed to those who work the day shift only, which included such disorders such as duodenal ulcers, dyspepsia, and gastric ulcers. The most frequent general complaint among shift workers was a lack of sleep. The author concluded that about twenty to thirty percent of all people are unable to adapt themselves to shift work.(31)

Aanonsen examined the medical problems of shift workers in a study that covered a six-year period. His investigations were carried out at two Norwegian metallurgical factories that employed approximately 1,750 persons, of which 1,106 were included in this study. The employees were divided into three groups: day laborers, shift laborers, and day laborers who were previously shift laborers. The results of the comparisons drawn between the employee groups indicated that regular shift laborers, present or previous,

had a forty percent increased morbidity with regard to neuroses and nervous disorders, and a thirty-four percent increase with regard to ailments of the alimentary tract. The data also demonstrated that day laborers had a sixty percent increased morbidity with regard to heart diseases.(32)

Wyatt and Marriott studied various aspects of shift work in comparison to day work. They interviewed workers employed on different shift sequences and collected all available records of output, accidents, and absences. Their figures showed that the average hourly output was slightly higher on the day shift than on the night shift. One hundred fifty factory employees were questioned on their attitudes toward day and night work. Of these men, sixty-eight percent claimed they worked better on the day shift than on the night shift, while only eleven percent found the night shift better for output. Wyatt and Marriott reported that eating habits, absence from work, and subjective fatigue were additional aspects of life affected by shift rotation. Their results indicated that when shifts were changed every two weeks, absence on the night shift was higher in the second week than in the first week. On the day shift the opposite tendency was noted. The authors attributed this pattern to night shift fatigue which increased during the second week of the night shift and carried over to the first week of the day shift. Almost all subjects preferred day work to night work because it was believed to be better for

health, output, and social life. Eighty-three percent of the subjects stated that they felt more tired on the night shift, and forty-two percent reported that they were unable to get enough sound sleep during the day. Eating habits were also affected by shift work, with seventy-four percent of the men stating that they enjoyed their food more when working on the day shift. In addition, sixty-two percent of the subjects claimed that they settled down to new meal times immediately after changing from night to day work, while only thirty-seven percent settled down to the new day to night meal times.(33)

Colligan, et al. completed a study on the frequency of sickness, absence, and worksite clinic visits among nurses as a function of their shift. The records of 1,219 nurses were examined. The sample included 315 permanent day workers, 306 permanent afternoon/evening workers, 289 permanent night workers, and 309 rotating shift workers. Fixed shift workers tended to take time off for relatively minor ailments such as colds and headaches, while rotating shift workers more often took time off for disorders such as acute respiratory infections and upper GI tract symptoms. The general pattern of the data suggested that while rotating shift workers may experience a greater incidence of illness as indicated by the greater frequency of clinic visits, they are less likely to be absent from work for minor ailments.(34) This would indicate that the rotating shift workers may have

altered their perceptions of self-health.

Job Satisfaction

A second professional factor which may affect nurses' perceptions of self-health is that of job satisfaction. A study of job stress and its implications for staff nurses completed by Albrecht supported the relationship between job satisfaction and health. In this study, 101 nurses in five acute care units of a major northwestern metropolitan hospital were interviewed concerning their reactions to stressors. The results indicated that many nurses were experiencing "job burnout", which was defined as a condition of mental and physical exhaustion in reaction to chronic daily stress in the work situation. The nurses in the study reported feeling emotionally drained, fatigued, personally involved with patient problems, and frustrated by their jobs. They described their jobs, however, as respected, useful, challenging, and providing a sense of accomplishment. Negative descriptions included reports that their jobs were routine, tiresome, unhealthy, frustrating, physically taxing and often unpleasant. The author reports that feelings of satisfaction with nursing had strong negative correlations with burnout in this study.(35)

In a study by Yasko, burnout was correlated with job satisfaction variables. She surveyed 185 masters-prepared nurses who were functioning as oncology clinical nurse specialists. The degree of burnout was measured by the Jones

Staff Burnout Scale for Health Professionals. Independent variables were measured by a questionnaire. The results indicated that the best predictors of burnout were dissatisfaction with the current role, experiencing a high level of stress at work, feelings of apathy and withdrawal, and receiving inadequate psychological support at work.(36)

Nurses' job satisfaction was associated with a variety of independent variables in a study by Slavitt and others. In this study a two-part questionnaire was developed to examine the level of job satisfaction of nurses in a hospital setting. This tool incorporated the current satisfaction levels with measurements of the perceptions of the ideal situation. The questionnaire was administered to the nursing staff of two hospitals for a total sample size of 555 respondents. The results indicated that there was a relationship between the overall job satisfaction score and the unit on which the nurses worked. Nurses in special care areas, such as ICU, OR, and ER, had the highest scores with nurses in medical-surgical units scoring the lowest. The duration of nursing experience was also associated with job satisfaction. Nurses with less than one year of experience scored moderately high, while scores dropped in those nurses with one to seven years of experience. Age was an additional variable that correlated with job satisfaction. Nurses in the twenty to twenty-nine year-old age bracket reported the least job satisfaction.(37) Given the fact

that job satisfaction was associated with the degree of burnout experienced by nurses, the findings of this study indicated that the type of nursing unit, duration of nursing experience, and age of the nurse all had an impact on the nurses' perceptions of health.

Type of Nursing Care Unit

A third professional factor indicated by the literature to influence nurses' perceptions of self-health is that of the type of nursing care unit on which they work. A study by Reichle described the stressors inherent in the acute care areas of the hospital. These stressors were identified as being major contributing factors in the level of nursing burnout exhibited. The constant demands for rapid judgment, management of life-saving technical equipment, and crisis intervention are ever-present in the intensive care unit. These factors, combined with the short duration of patient's stay and subsequent inability to form nurse-patient rapport, serve to increase the stress level and the resultant "burnout" of the nursing staff.(38)

A study by Warren enumerated additional stressors present in critical care areas. Lack of work space, high noise and distraction levels, and confused areas of responsibility are additional stress-producing factors identified in her study.(39)

Maloney and Bartz also addressed the relationship

between the type of nursing unit and nurses' perceptions of stress. They hypothesized that both intensive and non-intensive care nurses experienced high levels of stress, but the means by which they dealt with this stress differed. In the study they conducted, forty-eight intensive care and forty-eight non-intensive care nurses were selected, tested, and compared in terms of: (1) the degree of commitment versus alienation expressed, (2) the degree of internal versus external control perceived, and (3) the degree of challenge versus familiarity sought. The results indicated that intensive care nurses were significantly more alienated and considered themselves to be more externally controlled. The intensive care nurses also viewed themselves as seeking more challenges than the non-intensive care nurses.(40) Since alienation and external control were positively correlated with burnout, the intensive care nurses appeared to be at higher risk than the non-intensive care nurses.

Professional Commitment

A fourth professional factor indicated by the literature to influence nurses' health is that of professional commitment. Seuntjens identified organizational symptoms such as less commitment, absenteeism, and job dissatisfaction, as indicators of impending burnout.(41) This statement would indicate that a high degree of commitment may have the potential to decrease the physical and psychological symptoms of burnout, and thus improve the nurses'

perception of their own health.

A study by Murray on role conflict and intention to leave nursing also postulates a relationship between professional commitment and nurses' perception of health. In this study, 246 nurses completed a questionnaire about their job intentions, self-concept, and the image they thought the public had of the ideal nurse. Three dimensions of nurses were measured: the "professional" who was concerned with specialized knowledge and skills, the "traditional" who emphasized tender loving care, and the "personality" dimension which concentrated on a range of personality attributes such as generosity, practicality, and physical attractiveness. The results indicated that the group of nurses who rated themselves as being more professional also considered themselves to be significantly more healthy.(42)

Summary of the Literature Review

The literature reviewed suggests the following generalizations:

1. Selected personal factors of the Health Belief Model, such as concern about health matters in general, subjective estimate of susceptibility to illness, presence of symptoms, and age, may affect illness behavior.

2. Positive health activities, such as the practice of regular exercise and ingestion of a balanced diet, may improve perceptions of self-health.

3. Social factors, such as the degree of social interaction, number of role responsibilities, and number of children, may affect perceptions of self-health.

4. Professional factors, such as shift rotation, may have an adverse affect on health.

5. Job satisfaction may have a positive influence on perceptions of self-health.

6. The type of nursing care unit where the nurse is employed may influence her perception of self-health. The critical care areas are believed to be more stressful, and therefore more likely to contribute to the nurses' perceptions of illness.

7. A high degree of professional commitment may improve the nurses' perceptions of their own health.

Conceptual Model: Health Perception Model

The review of the literature and modification of the Health Belief Model discussed previously enables the generation of the following conceptual model, titled the Health Perception Model, for understanding the affects of selected personal and professional factors on nurses' perceptions of self-health.

The Health Perception Model (Figure 2) indicates that selected personal factors, such as concern about health matters in general, subjective estimate of susceptibility to illness, age, and the presence of symptoms or a diagnosed illness, may affect the nurses' perceptions of self-health.

Certain professional factors may also contribute to nurses' health perceptions. These factors include shift rotation, job satisfaction, type of nursing care unit, length of experience in nursing, and degree of professional commitment.

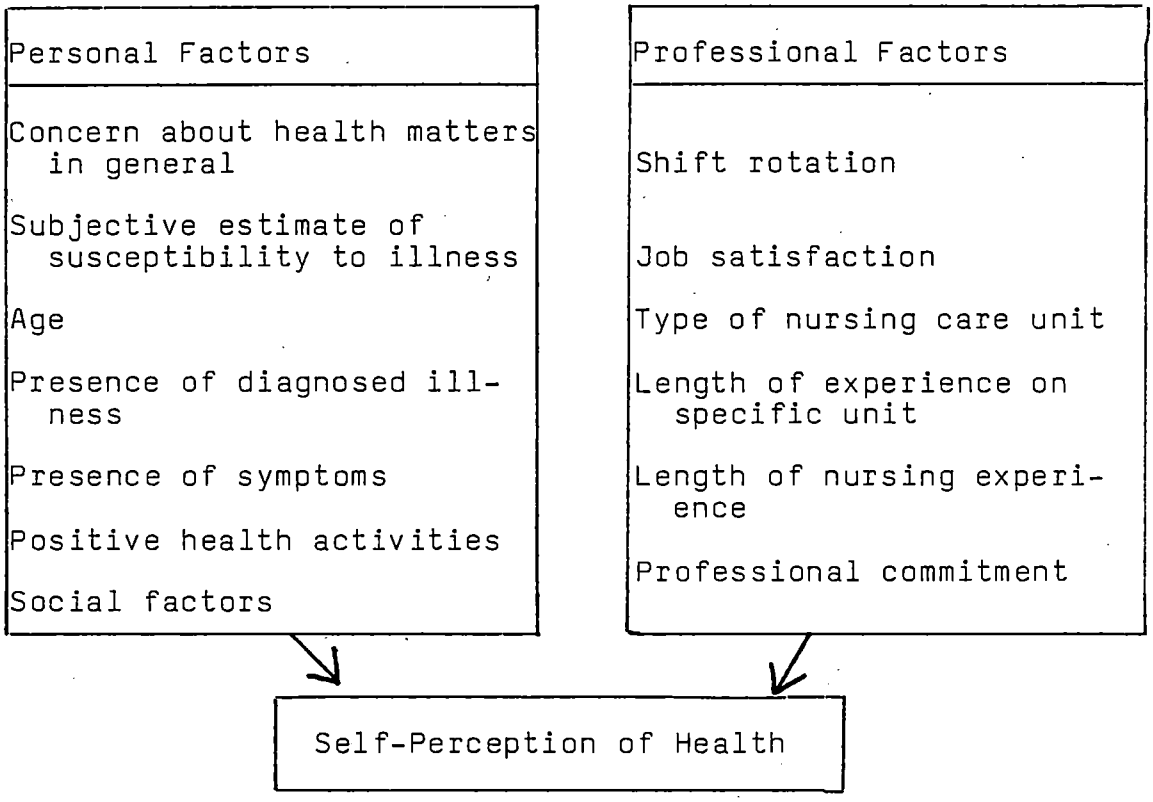


Figure 2

Health Perception Model

Variables

The variables included in this study were:

1. The dependent variable (Y) was the nurses' perceptions of self-health.

2. The independent variables (X) and operationalization of each, were the following personal and professional factors:

Personal factors: X_1 = Concern about health matters in general (Appendix A, questions 19, 20, and 32). This was operationalized by summing the responses to questions 19, 20, and 32 on the questionnaire and was calculated as: Col 24 + Col 25 + (8 - Col 37).

X_2 = Subjective estimate of susceptibility to illness (Appendix A, questions 30 and 34). This was operationalized by summing the responses to questions 30 and 34 on the questionnaire, and was calculated as: Col 35 + (8 - Col 39).

X_3 = Age (Appendix A, question 2). This was operationalized by summing the responses to question 2 on the questionnaire, and was calculated as: Col 6.

X_4 = Presence of symptoms (Appendix A, part three of the questionnaire). This was operationalized by summing the responses to part three of the questionnaire. A value of one was assigned to the positive symptoms, and a value of zero was assigned to symptoms not indicated on the checklist. The calculations were: Col (43 + 44 + 45 + 46 + ...66).

X_5 = Presence of diagnosed illness (Appendix A, part three of the questionnaire). This was operationalized by summing the individual responses to part three of the questionnaire. A value of one was assigned to the illnesses

indicated as being present, and a value of zero was assigned to an illness not indicated on the checklist. The calculations were: ΣCol (5 + 6 + 7 + 8 + ...29).

X_6 = Positive health activities (Appendix A, questions 17, 18, 21, 26, and 31). This was operationalized by summing the individual responses to questions 17, 18, 21, 26, and 31 on the questionnaire and was calculated as: Σ Col 22 + Col 23 + Col 26 + Col 31 + (8 - Col 36).

X_7 = Social factors (Appendix A, questions 3, 4, 22, 23, 25, and 29). This was operationalized by summing the individual responses to questions 3, 4, 22, 23, 25, and 29 on the questionnaire and was calculated as: ΣCol 7 + Col 8 + (8 - Col 27) + (8 - Col 28) + Col 30 + (8 - Col 34).

Professional factors: X_8 = Shift rotation (Appendix A, questions 15, 16, and 27). This was operationalized by summing the individual responses to questions 15, 16, and 27 on the questionnaire and was calculated as: ΣCol 20 + Col 21 + Col 32.

X_9 = Job satisfaction (Appendix A, questions 24, 28, 33, 35, and 37). This was operationalized by summing the individual responses to questions 24, 28, 33, 35, and 37 on the questionnaire and was calculated as: Σ Col 29 + Col 33 + (8 - Col 38) + Col 40 + (8 - Col 42).

X_{10} = Type of nursing care unit (Appendix A, question 5). This was operationalized by summing the individual responses to question 5 on the questionnaire and

was calculated as: Col 9-10.

X_{11} = Length of experience on specific unit (Appendix A, question 6). This was operationalized by summing the individual responses to question 6 on the questionnaire and was calculated as: Col 11.

X_{12} = Length of nursing experience (Appendix A, question 7). This was operationalized by summing the individual responses to question 7 on the questionnaire and was calculated as: Col 12.

X_{13} = Professional commitment (Appendix A, questions 10, 11, 12, and 13). This was operationalized by summing the individual responses to questions 10, 11, 12, and 13 on the questionnaire and was calculated as: Col 15 + Col 16 + Col 17 + Col 18.

Hypotheses

The review of the literature and the conceptual model enables the generation of the following statistical hypotheses:

1. There is no relationship between concern about health matters in general and nurses' perceptions of self-health.

2. There is no relationship between subjective estimates of susceptibility to illness and nurses' perceptions of self-health.

3. There is no relationship between age and nurses' perceptions of self-health.

4. There is no relationship between the presence of symptoms and nurses' perceptions of self-health.

5. There is no relationship between the presence of diagnosed illness and nurses' perceptions of self-health.

6. There is no relationship between the practice of positive health activities and nurses' perceptions of self-health.

7. There is no relationship between social factors and nurses' perceptions of self-health.

8. There is no relationship between shift rotation and nurses' perceptions of self-health.

9. There is no relationship between job satisfaction and nurses' perceptions of self-health.

10. There is no relationship between the type of nursing care unit and nurses' perceptions of self-health.

11. There is no relationship between the length of experience on a specific unit and nurses' perceptions of self-health.

12. There is no relationship between the length of nursing experience and nurses' perceptions of self-health.

13. There is no relationship between professional commitment and nurses' perceptions of self-health.

CHAPTER 3

Methodology

The research methodology used for this study is reviewed in this chapter. The research approach, sample, research tool, method of collecting data, and procedures for analysis of data is discussed.

Approach

The research approach used in this study was a descriptive correlation design using a survey instrument.

Sample

The target population from which the sample was derived consisted of all practicing, full-time or part-time, registered nurses. The accessible population consisted of 158 nurses employed on selected units of a 515-bed hospital in a rural Midwestern state and working either the 7:00 a.m. to 7:00 p.m. shift or the 7:00 p.m. to 7:00 a.m. shift. The units used for this study were the medical/surgical units, the emergency room, the intensive care unit, the cardiac care unit, the dialysis unit, the pediatric intensive care unit, the pediatric unit, the adolescent unit, the postpartum/nursery unit, the labor/delivery unit, the high risk maternity unit, and the neonatal intensive care unit. The non-random sample consisted of 121 nurses who returned the

completed questionnaires.

Research Tool

The questionnaire developed for this study consisted of three sections (Appendix A). Section one included demographic data such as sex, age, length of employment at current job, marital status, number of children, educational status, and duration of nursing experience. Additional data in section one were type of nursing care unit at which currently employed, the shifts worked, number of nursing journals suscribed to, number of professional organization memberships, and number of workshops attended.

Section two of the questionnaire consisted of questions reflecting a seven-point, Likert-type scale. These questions were designed to gather data related to the thirteen independent variables included in the study. A value of seven on the scale represented the most favorable response and a value of one on the scale represented the least favorable response. A "no opinion" response was indicated by a value of four. Scale values were reversed for negatively-phrased questions numbered 22, 23, 29, 31, 32, 33, 34, and 37.

Section three of the questionnaire consisted of a symptom checklist and a diagnosed illness checklist. These checklists were designed to gather information about the presence of symptoms or disease status of the 121 respondents.

A face sheet accompanied each questionnaire. The face sheet identified the researcher, explained the purpose of the study, and informed the respondent that consent to participate in the study was evidenced by completion and return of the questionnaire by the end of the shift to the designated place at the nurses' station on their unit.

The questionnaire was developed based on the review of the literature and the conceptual model. It was pretested for content validity by registered nurses not included in the sample. Based on their comments, revisions were made in the questionnaire prior to distribution.

Method of Collecting Data

The data for this study were collected during the fall of 1983 based on the following process:

1. Permission to use the hospital and approach the nurses for their consent to participate in the study was obtained from the Vice-President of Nursing at a 515-bed hospital in a rural Midwestern state.

2. Prior to distribution of the questionnaires, memos were sent to each nursing unit by the Vice-President of Nursing informing the nurses of the research project.

3. Questionnaires were delivered to each nursing unit at the hospital by the researcher in December 1983. Each head nurse was verbally instructed to distribute the questionnaires to each registered nurse working on her unit during their shift. The researcher informed the head nurses

that the responses to the questionnaires were confidential. Head nurses were also provided with manila envelopes placed at the ward secretary's desk. The face sheet instructed the nurse respondents to return the questionnaires to these envelopes. The questionnaires distributed during the day shift (7:00 a.m. to 7:00 p.m.) were counted at each unit midway through the shift to determine whether all had been returned. If some of the questionnaires were missing, the nurses were reminded by the researcher to return them. The questionnaires distributed during the night shift (7:00 p.m. to 7:00 a.m.) were not counted midway through the shift. At the end of the shifts, the questionnaires were collected by the researcher.

Analysis of Data

Questionnaires were returned by 121 nurse respondents. The data were coded and recorded on IBM punch cards following standard-approved data input procedures.

The data were then retrieved to: (1) provide a descriptive analysis of the nurses as a group and (2) determine the affects of selected personal and professional factors on nurses' perceptions of self-health as reported in Chapter 4.

The descriptive analysis was based on frequency and percentage listings of the individual responses in section one of the questionnaire.

Statistical analysis of factors that affect nurses' perceptions of self-health was based on analysis of variance (anova). The significance level for the purposes of this study was .05.

CHAPTER 4

Analysis of the Research Findings

This chapter presents a descriptive analysis of the data and results of hypotheses testing.

Descriptive Analysis

Frequency and percentage listing of the data based on the individual responses to questions in section one of the questionnaire were calculated. The descriptive study of the characteristics of the nurses as a group is based on these tabulations.

The population for this study consisted of 158 registered nurses practicing in a large hospital in a rural Midwestern state. Of this population, 121 respondents (76.58 percent) returned questionnaires, producing a non-random sample of seven males and 114 females. The data recorded on the questionnaires generate the following descriptive analysis of the nurses making up the sample.

Age. As indicated by Table 1, page thirty-eight, the respondents' mean age was approximately twenty-nine years. The reported ages ranged from twenty to greater than fifty years of age.

Marital Status. Married respondents numbered seventy-two (59.50 percent) of the sample. The respondents who

reported that they had never been married numbered forty-one (33.88 percent). The remaining eight, (6.61 percent) reported that they were divorced.

Table 1

Number and Percent of Nurse Respondents by Age

Age in Years	Number	Percent
20 - 24	36	29.75
25 - 29	49	40.50
30 - 34	15	12.40
35 - 39	6	4.96
40 - 44	6	4.96
45 - 49	5	4.13
50 or over	4	3.30
TOTAL	121	100.00

Mean: 29.02

Number of Children. Seventy-four (61.15 percent) respondents had no children, while thirty (24.79 percent) had one or two children. Fifteen, (12.40 percent) had three or four children. There were two nurses (1.65 percent) who reported having five or six children.

Type of Nursing Unit. As indicated by Table 2, page thirty-nine, fifty (41.32 percent) respondents worked on a medical-surgical unit, and five (4.13 percent) worked in the

Table 2

Number and Percent of Nurse Respondents By Type of Nursing Unit at Which Employed

Type of Hospital Unit	Number	Percent
Medical/Surgical unit	50	41.32
Emergency room	5	4.13
Intensive Care unit	19	15.70
Cardiac care unit	18	14.88
Dialysis unit	3	2.48
Pediatric Intensive Care unit	1	.83
Pediatric unit	5	4.13
Adolescent unit	1	.83
Postpartum/Nursery unit	8	6.61
Labor/Delivery unit	8	6.61
Neonatal Intensive Care unit	3	2.48
TOTAL	121	100.00

emergency room. There were nineteen (15.7 percent) respondents who were employed in an intensive care unit, while eighteen (14.88 percent) worked in a cardiac care unit. The dialysis unit employed three (2.48 percent) nurses. One nurse (.83 percent) worked in the pediatric intensive care unit, while five (4.13 percent) worked in the pediatric unit and one (.83 percent) worked in the adolescent unit. The postpartum/nursery floor and the labor/delivery unit each employed eight (6.61 percent) respondents. Three (2.48 percent) reported that they worked in the neonatal intensive care unit.

Length of Employment on Present Floor. Thirty-two (26.45 percent) respondents had been employed on the present unit for less than one year. Respondents working one to three years on the present unit numbered forty-seven (38.84 percent). Thirty-two (26.45 percent) respondents reported working four to six years, while four (3.31 percent) reported working seven to nine years on the present unit. There were six (4.96 percent) who were employed on the present floor for ten or more years.

Length of Total Nursing Experience. The respondents who reported less than one year of total nursing experience total twelve (9.92 percent). Thirty-two (26.45 percent) had worked from one to three years, and thirty-seven (30.58 percent) had worked from four to six years. Twenty (16.53 percent)

respondents reported working seven to nine years, and another twenty (16.53 percent) reported that the total length of their nursing experience was ten or more years.

Basic Level of Preparation in Nursing. Thirty-two (26.45 percent) nurses were basically prepared at the Associate Degree level, while fifty-two (42.98 percent) were graduates of diploma programs in nursing. The respondents prepared at the baccalaureate level numbered thirty-seven (30.58 percent).

Highest Level of Education Obtained. Twenty-nine (23.97 percent) respondents indicated that their highest level of education was the Associate Degree. Fifty (41.32 percent) reported obtaining a diploma in nursing as their highest level of education, while forty-one (33.88 percent) reported obtaining a Baccalaureate Degree. Only one respondent (.83 percent) had achieved a Masters Degree, and this was in a field other than nursing.

Professional Organization Membership. Eighty (66.12 percent) respondents were not members in any professional organization. There were thirty-four (28.10 percent) who reported belonging to one professional organization, while three (2.48 percent) belonged to two professional organizations. Two (1.65 percent) reported membership in four professional organizations, while two (1.65 percent) belonged to five.

Nursing Articles Read Monthly. There were six (4.96 percent) respondents who read no nursing articles each month. The respondents who read one to two articles monthly numbered seventy-five (61.98 percent) while twenty-seven (22.31 percent) read three to four articles. Seven (5.79 percent) of the respondents reported reading five to six nursing articles monthly, and six (4.96 percent) read seven or more articles per month.

Nursing Inservices Attended. The respondents who reported no attendance at nursing inservices numbered three (2.48 percent), while twenty-three (19.01 percent) attended one to two inservices annually. Nineteen (15.70 percent) participated in three to four nursing inservices, and thirty-one (25.62 percent) attended five to six inservices per year. There were forty-five (37.19 percent) respondents who reported attendance at seven or more inservices yearly.

Nursing Workshops Attended. Thirty-four (28.10 percent) respondents did not attend any workshops yearly. Sixty-six (54.55 percent) reported attendance at one to two nursing workshops, and seventeen (14.05 percent) attended three to four nursing workshops annually. The respondents who participated in five to six workshops per year numbered three (2.48 percent) while one (.83 percent) of the nurses, attended seven or more annual workshops.

Hours Worked Weekly. Three (2.48 percent) respondents worked less than twelve hours per week, while six (4.96 percent) worked twelve to eighteen hours weekly. The number of respondents who worked nineteen to twenty-four hours was 110 (90.91 percent). The remaining two (1.65 percent) worked twenty-five to thirty-six hours a week.

Shifts Worked. There were thirty-one (25.62 percent) respondents who usually worked the day shift only, and seven (5.78 percent) who usually worked the night shift only. Eighty-three (68.60 percent) rotated between the day shift and the night shift.

Frequency of Shift Rotation. Thirty-three (27.27 percent) respondents never rotated shifts, while forty-three (35.54 percent) rotated weekly. Twenty-seven (22.31 percent) reported rotating shifts every two weeks, and eighteen (14.88 percent) respondents rotated shifts monthly.

Frequency of Exercise. The respondents who did not exercise numbered twenty-two (18.18 percent). Fifty-five (45.46 percent) reported exercising one to two times weekly, and thirty (24.79 percent) exercised three to four times. There were fourteen (11.57 percent) respondents who exercised five or more times a week.

Length of Exercise Sessions. One (.83 percent) respondent reported that the length of exercise sessions was zero

minutes. There were thirty-nine (32.23 percent) who reported spending ten to nineteen minutes per exercise session, while twenty-two (18.18 percent) spent twenty to twenty-nine minutes on exercise sessions. Twenty (16.53 percent) respondents exercised for thirty to thirty-nine minutes per session, and eighteen (14.88 percent) allotted forty or more minutes for each exercise session.

Degree of Concern About Health. The respondents who reported that their health was a major concern in their lives numbered forty-two (34.71 percent). Sixty-one (50.41 percent) reported average concern about their health, and fourteen (11.57 percent) reported minor concern. Four (3.31 percent) reported that their health was of no concern to them.

Presence of Symptoms. As indicated by Table 3, page forty-five, fifty (41.32 percent) respondents reported difficulty sleeping, twenty-seven (22.31 percent) slept too much, twenty-eight (23.14 percent) had bowel irregularity, thirteen (10.74 percent) had skin rashes, twelve (9.91 percent) had frequent colds, three (2.47 percent) had breathing difficulties, eleven (9.09 percent) had earaches, five (4.13 percent) had visual problems, three (2.47 percent) had fainting spells, fifteen (12.39 percent) complained of dizziness, fifty-eight (47.93 percent) had headaches, twelve (9.91 percent) had appetite loss, twenty-three (19.00 percent) had experienced an increase in appetite, nineteen (15.70 percent)

Table 3

Number and Percent of Nurse Respondents By Type(s) of Symptoms Present

Type of Symptoms	Number
Difficulty sleeping	50
Slept too much	27
Bowel irregularity	28
Skin rashes	13
Frequent colds	12
Breathing difficulties	3
Earaches	11
Visual problems	5
Fainting spells	3
Dizziness	15
Headaches	58
Appetite loss	12
Increased appetite	23
Nausea/vomiting	27
Abdominal pain	16
Back pain	43
Muscle weakness/aching	41
Numbness/tingling of extremities	4
Irregular menstrual periods	14
Loss of libido	5

complained of nausea, eight (6.61 percent) complained of vomiting, sixteen (13.22 percent) had abdominal pain, forty-three (35.53 percent) had back pain, five (4.13 percent) had muscle weakness, thirty-six (29.75 percent) had muscle aching, four (3.30 percent) had numbness/tingling of the extremities, fourteen (11.57 percent) had irregular menstrual periods, and five (4.13 percent) had experienced a loss of libido.

Presence of Diagnosed Illness. As indicated by Table 4, page forty-seven, four (3.30 percent) of the respondents reported having allergies, four (3.30 percent) had eczema, five (4.13 percent) had hemorrhoids, three (2.47 percent) had bronchitis, two (1.65 percent) had ear infections, four (3.30 percent) had hypertension, two (1.65 percent) had varicose veins, two (1.65 percent) reported anemia, one (.83 percent) had gall bladder disease, and one (.83 percent) had arthritis.

Summary of General Respondent Characteristics. The typical respondent was female, twenty-nine years of age, married, and had no children. She had been employed on a medical-surgical unit for one to three years, and the length of her total nursing experience was four to six years. Her basic level of nursing preparation was a three-year diploma program, and this was the highest level of nursing education that she had obtained. The respondent did not belong to any

Table 4

Number and Percent of Nurse Respondents By Type(s) of Diagnosed Illness Present

Type of Diagnosed Illness	Number	Percent
Allergies	4	3.30
Eczema	4	3.30
Hemorrhoids	5	4.13
Bronchitis	3	2.47
Ear infections	2	1.65
Hypertension	4	3.30
Varicose veins	2	1.65
Anemia	2	1.65
Gall bladder disease	1	.83
Arthritis	1	.83

professional organizations, but she read one to two nursing articles monthly and attended five to six nursing inservices and three to four nursing workshops annually. She worked nineteen to twenty-four hours per week and rotated between the day and night shifts weekly. Her exercise routine consisted of twenty to twenty-nine minutes of exercise one to two times weekly. She reported average concern about her health. The symptoms she most frequently experienced were those of a headache, difficulty sleeping, and/or back pain.

Hypotheses Testing

The objective of this study was to determine the affects of selected personal and professional factors on nurses' perceptions of self-health. The statistical test used was the analysis of variance (anova). The significance level for the purposes of this study was .05. For presenting purposes, the null hypothesis will be stated followed by a statement of the results of the statistical test (Appendix B).

Null Hypothesis 1. There is no relationship between concern about health matters in general and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .2579, therefore, $p > .05$ and the null hypothesis was not rejected.

Null Hypothesis 2. There is no relationship between subjective estimate of susceptibility to illness and nurses' perceptions of self-health.

The level of probability obtained by the anova on this

variable was .0001, therefore $p < .05$ and the null hypothesis was rejected.

Null Hypothesis 3. There is no relationship between age and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .4585, therefore $p > .05$ and the null hypothesis was not rejected.

Null Hypothesis 4. There is no relationship between the presence of symptoms and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .0202, therefore $p < .05$ and the null hypothesis was rejected.

Null Hypothesis 5. There is no relationship between the presence of diagnosed illness and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .0423, therefore $p < .05$ and the null hypothesis was rejected.

Null Hypothesis 6. There is no relationship between the practice of positive health activities and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .0387, therefore $p < .05$ and the null hypothesis was rejected.

Null Hypothesis 7. There is no relationship between social factors and nurses' perceptions of self-health.

The level of probability obtained by the anova on this

variable was .1733, therefore p > .05 and the null hypothesis was not rejected.

Null Hypothesis 8. There is no relationship between shift rotation and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .5645, therefore p > .05 and the null hypothesis was not rejected.

Null Hypothesis 9. There is no relationship between job satisfaction and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .1956, therefore p > .05 and the null hypothesis was not rejected.

Null Hypothesis 10. There is no relationship between the type of nursing care unit and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .9491, therefore p > .05 and the null hypothesis was not rejected.

Null Hypothesis 11. There is no relationship between the length of experience on a specific unit and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .5942, therefore p > .05 and the null hypothesis was not rejected.

Null Hypothesis 12. There is no relationship between the length of nursing experience and nurses' perceptions of self-health.

The level of probability obtained by the anova on this

variable was .7321, therefore $p > .05$ and the null hypothesis was not rejected.

Null Hypothesis 13. There is no relationship between professional commitment and nurses' perceptions of self-health.

The level of probability obtained by the anova on this variable was .4373, therefore $p > .05$ and the null hypothesis was not rejected.

Summary of Hypotheses Testing. The rejection of the null hypotheses based on the statistical testing implied acceptance of the following research hypotheses:

1. There is a relationship between subjective estimates of susceptibility to illness and nurses' perceptions of self-health (X_2).

2. There is a relationship between the presence of symptoms and nurses' perceptions of self-health (X_4).

3. There is a relationship between the presence of diagnosed illness and nurses' perceptions of self-health (X_5).

4. There is a relationship between the practice of positive health activities and nurses' perceptions of self-health (X_6).

The following null hypotheses could not be rejected at the .05 level of significance:

1. There is no relationship between concern about health matters in general and nurses' perceptions of

self-health (X_1).

2. There is no relationship between age and nurses' perceptions of self-health (X_3).

3. There is no relationship between social factors and nurses' perceptions of self-health (X_7).

4. There is no relationship between shift rotation and nurses' perceptions of self-health (X_8).

5. There is no relationship between job satisfaction and nurses' perceptions of self-health (X_9).

6. There is no relationship between the type of nursing care unit and nurses' perceptions of self-health (X_{10}).

7. There is no relationship between the length of experience on a specific unit and nurses' perceptions of self-health (X_{11}).

8. There is no relationship between the length of nursing experience and nurses' perceptions of self-health (X_{12}).

9. There is no relationship between professional commitment and nurses' perceptions of self-health (X_{13}).

CHAPTER 5

Summary, Conclusions, Implications, Limitations, and Recommendations

The purpose of this chapter is to present:

1. A summary of the research problem and design.

2. A summary of the major findings and conclusions as related to the objective of the study.

3. A statement of implications derived from the research findings and conclusions.

4. A statement of limitations of the study.

5. Recommendations for further research.

Summary of the Research Problem and Design

Interest in the determinants of illness behavior among workers is increasing. It has been suggested that it is the individual's perceptions about her health, rather than her actual health status, which may determine her subsequent behavior. Thus, a nurse who considers herself to be ill is more likely to be absent from work. Therefore, the problem under investigation was to determine the extent to which selected personal and professional factors affect nurses' perceptions of self-health.

A review of the literature related to the problem indicated that there are several personal and professional factors which may affect nurses' perceptions of self-health.

The personal factors include concern about health matters in general, subjective estimate of susceptibility to illness, presence of symptoms or diagnosed disease, age, practice of positive health activities, and social factors. In addition to these personal factors are several professional factors which may affect nurses' perceptions of self-health, such as shift rotation, job satisfaction, type of nursing care unit where employed, length of experience on specific unit, length of nursing experience, and degree of professional commitment.

A questionnaire was designed and administered to 158 registered nurses employed at a selected 515-bed hospital in a rural Midwestern state. The questionnaire gathered data which, through statistical testing with anova, attempted to predict the affects of selected personal and professional factors on nurses' perceptions of self-health. One hundred and twenty-one questionnaires were returned by the respondents who made up the non-random sample for the study.

Thirteen statistical hypotheses related to the affects of independent variables were generated, such as concern about health matters in general, subjective estimate of susceptibility to illness, age, presence of symptoms, presence of diagnosed illness, positive health activities, social roles, shift rotation, job satisfaction, type of nursing care unit, length of experience in specific unit, length of nursing experience, and professional commitment, on nurses' perceptions of self-health.

A descriptive analysis of the general characteristics of the respondents indicated that the typical respondent was female, twenty-nine years of age, married, and had no children. She had been employed on a medical-surgical unit for one to three years, and the length of her total nursing experience was four to six years. Her basic level of nursing preparation was a three-year diploma program, and this was the highest level of nursing education she had obtained. She worked nineteen to twenty-four hours per week and rotated between the day and night shifts weekly. She reported average concern about her health.

Major Findings and Conclusions

The major findings and conclusions as related to the objective of the study were:

Major findings. Four of the independent variables were found to be significant at the .05 level of probability. These variables were:

1. Subjective estimate of susceptibility to illness (X_2).
2. Presence of symptoms (X_4).
3. Presence of diagnosed illness (X_5).
4. Positive health activities (X_6).

Conclusions. An analysis of the data indicated that health beliefs may contribute to nurses' perceptions of self-health. More specifically, the subjective estimate

of susceptibility to illness, presence of symptoms and/or diagnosed illness, and practice of positive health activities all influence the nurses' health perceptions.

Implications of Research

Major implications of this study are:

1. The high degree of the nurses' subjective estimates of susceptibility to illness indicate that this population considers themselves to be at risk for a variety of illnesses. This may affect the way that they function in their professional role as well as their perceptions of health. Nurses are not being adequately safeguarded from illness in the hospital setting and additional precautions, perhaps, are necessary to ensure their safety from disease.

2. The increased number of symptoms and diseases present in the nursing population may also be directly related to job stress. The high level of stress present in the hospital setting could be precipitating many of these conditions. More stress-management education is, perhaps, necessary.

3. The positive affects of a balanced diet and physical exercise on nurses' perceptions of self-health imply that these practices should be emphasized among nurses employed in the hospital setting. Dining facilities that are open at night as well as during the day are necessary to facilitate a balanced diet. The provision of exercise facilities may

also boost the health of nurses employed in the hospital setting.

Limitations of the Study

The limitations of the study are:

1. The sample was non-random, therefore the generality of the findings and conclusions are restricted to the sample.

2. The method of distribution of the questionnaires may have biased the responses because the nurse respondents completed the questionnaires within their work environment and at the request of the head nurse.

3. The wording of the questionnaire may have produced various responses due to the individual interpretations of the questions.

4. The questionnaires were distributed to one hospital in a rural Midwestern state, which used one type of shift scheduling. Therefore, the findings reflect responses of nurses who may be homogenous in their beliefs and characteristics.

5. The variables selected for analysis may not fully explain factors that contribute to nurses' perceptions of self-health.

Recommendations for Further Study

The author recommends for further study:

1. This study should be replicated using a random sample.

2. A study of nurses' perceptions of self-health in various sized hospitals in urban and rural areas may provide an interesting contrast to the perceptions of nurses in one small rural area.

3. A study of the affects of the implementation of a physical exercise program on nurses' perceptions of self-health may provide valuable information.

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APPENDIX A

RESEARCH TOOL

FACTORS RELATED TO THE HEALTH OF NURSES

In recent years there has been a great deal of interest in the area of nurses' health. I am a graduate student in nursing working on a research project designed to gather information on the effects of selected personal and professional factors on nurses' health. As a nurse employed at a hospital involved in this study, your response is important in order for the results to be representative. You also would be making a personal contribution to research designed to gain knowledge about the health of nurses.

All responses will be confidential. Consent to participate in this study will be evidenced by your completion of this questionnaire and return of it to the designated place at the nurse's station by 3:00 PM today.

Thank you for your cooperation,

CONSTANCE LEIGH PETERSON, R.N.

If you would like to receive a summary of the findings of this study, please feel free to contact the researcher at 1418F 8th Street, Brookings, South Dakota 57006; or by phone (605)692-7772.

_____ I.D. Number (1-3)

_____ Card Number (4)

QUESTIONNAIRE FOR UNDERSTANDING THE EFFECTS OF SELECTED PERSONAL AND PROFESSIONAL FACTORS ON NURSES' HEALTH

The following questions seek to obtain some general information about you and your job. Please select the most appropriate response and write the number in the blank to the left of the question.

_____ 1. What is your sex? (5)

1) Male
2) Female

_____ 2. What is your age? (6)

1) 20-24
2) 25-29
3) 30-34
4) 35-39
5) 40-44
6) 45-49
7) 50 or over

_____ 3. What is your marital status? (7)

1) Never married
2) Widowed
3) Divorced
4) Separated
5) Married, living with spouse

_____ 4. How many children do you have? (8)

1) 0
2) 1-2
3) 3-4
4) 5-6
5) 7 or more

_____ 5. What type of nursing unit do you usually work on? (9-10)

1) Medical/Surgical
2) Emergency Room
3) I.C.U.
4) C.C.U.
5) Dialysis
6) Pediatric I.C.U.
7) Pediatrics
8) Adolescent Unit
9) Postpartum/Nursery
10) Labor/Delivery
11) High Risk Maternity
12) Neonatal I.C.U.

_____ 6. How long have you been employed on your present floor? (11)

1) Less than 1 year
2) 1-3 years
3) 4-6 years
4) 7-9 years
5) 10 or more years

_____ 7. What is the length of your total nursing experience? (12)

1) Less than 1 year
2) 1-3 years
3) 4-6 years
4) 7-9 years
5) 10 or more years

_____ 8. What is your basic level of preparation in nursing? (13)

1) A.D.
2) Diploma
3) Baccalaureate

_____ 9. What is the highest level of education you have obtained? (14)

1) A.D.
2) Diploma
3) Baccalaureate
4) Masters degree (in nursing)
5) Masters degree (other than nursing)
6) Masters both in nursing and other field

_____ 10. What professional organizations do you belong to? (15)

1) S.D.N.A.
2) N.L.N.
3) A.N.A.
4) Sigma Theta Tau
5) Specialty group (A.A.C.N., A.A.O.R.N.) Specify _____

_____ 11. On the average, how many nursing articles do you read each month? (16)

1) 0
2) 1-4
3) 5-8
4) 9-12
5) 13 or more

_____ 12. On the average, how many nursing inservices (non-required) do you attend each year? (17)

1) 0
2) 1-2
3) 3-4
4) 5-6
5) 7 or more

_____ 13. On the average, how many nursing workshops (other than inservices) do you attend each year? (18)

1) 0
2) 1-2
3) 3-4
4) 5-6
5) 7 or more

_____ 14. On the average, how many hours a week do you work? (19)

1) Less than 12 hours
2) 12-18 hours
3) 19-24 hours
4) 25-36 hours

_____ 15. What shift(s) are you usually scheduled to work? (20)

1) Days only (7 a.m. to 7 p.m.)
2) Nights only (7 p.m. to 7 a.m.)
3) Days/Nights

_____ 16. How frequently are you usually scheduled to rotate shifts? (21)

1) Never
2) Every month
3) Every 2 weeks
4) Weekly

_____ 17. On the average, how many times a week do you exercise? (22)

1) 0
2) 1-2
3) 3-4
4) 5 or more

_____ 18. On the average, how long do your exercise sessions last? (23)

1) 0 minutes
2) 10-19 minutes
3) 20-29 minutes
4) 30-39 minutes
5) 40 minutes or more

_____ 19. To what extent is your health a concern in your life? (24)

1) Major concern
2) Average concern
3) Minor concern
4) No concern

PLEASE READ EACH OF THE FOLLOWING STATEMENTS, AND THEN CIRCLE ONE OF THE LETTERS ON EACH LINE TO INDICATE WHETHER THE STATEMENT IS TRUE OR FALSE FOR YOU. THERE ARE NO RIGHT OR WRONG ANSWERS.

SA = Strongly Agree
A = Agree
MA = Moderately Agree
U = Uncertain
MD = Moderately Disagree
D = Disagree
SD = Strongly Disagree

20.	I never worry about my health.	SA	A	MA	U	MD	D	SD	(25)
21.	I eat a balanced diet.	SA	A	MA	U	MD	D	SD	(26)
22.	My job interferes with my social life.	SA	A	MA	U	MD	D	SD	(27)
23.	I have the primary responsibility for child care in my home.	SA	A	MA	U	MD	D	SD	(28)
24.	I like my job.	SA	A	MA	U	MD	D	SD	(29)
25.	I am as involved in social activities (outside of work) as I would like to be.	SA	A	MA	U	MD	D	SD	(30)
26.	I eat some foods from each of the four food groups daily.	SA	A	MA	U	MD	D	SD	(31)
27.	I prefer rotating shifts to fixed shifts.	SA	A	MA	U	MD	D	SD	(32)
28.	I believe that people who are employed in a job they enjoy have better health.	SA	A	MA	U	MD	D	SD	(33)
29.	My work disrupts my family's schedule.	SA	A	MA	U	MD	D	SD	(34)

30.	I expect to have a very healthy life.	SA	A	MA	U	MD	D	SD (35)
31.	I do not have time to exercise.	SA	A	MA	U	MD	D	SD (36)
32.	I worry about my health more than other people worry about their health.	SA	A	MA	U	MD	D	SD (37)
33.	I would change careers if I had the opportunity.	SA	A	MA	U	MD	D	SD (38)
34.	I think my health will be worse in the near future than it is now.	SA	A	MA	U	MD	D	SD (39)
35.	My job enriches my life.	SA	A	MA	U	MD	D	SD (40)
36.	I consider myself to be a healthy person.	SA	A	MA	U	MD	D	SD (41)
37.	I would be in better health if I was not employed at my present job.	SA	A	MA	U	MD	D	SD (42)

PLEASE CHECK (✓) ANY SYMPTOMS YOU HAVE EXPERIENCED IN THE PAST 6 MONTHS. (CHECK AS APPROPRIATE)

_____ Can't sleep (43)

_____ Sleeps too much (44)

_____ Bowel irregularity (45)

_____ Skin rashes (46)

_____ Frequent colds, sore throats (47)

_____ Breathing difficulties (48)

_____ Earaches (49)

_____ Visual problems (50)

_____ Seizures (51)

_____ Fainting (52)

_____ Dizziness (53)

_____ Headaches (54)

_____ Loss of appetite (55)

_____ Increased appetite (56)

_____ Nausea (57)

_____ Vomiting (58)

_____ Abdominal pain (59)

_____ Back pain (60)

_____ Muscular weakness (61)

_____ Muscular aching (62)

_____ Numbness/tingling of extremities (63)

_____ Irregular menstrual periods (64)

_____ Loss of libido (65)

_____ Other (Specify) _____ (66)

_____ I.D. Number (1-3)

_____ Card Number (4)

PLEASE CHECK (✓) ANY OF THE FOLLOWING DISORDERS WHICH A PHYSICIAN HAS DIAGNOSED YOU AS HAVING DURING THE PAST 6 MONTHS. (CHECK AS APPROPRIATE)

_____ Allergies (5)
_____ Eczema, other skin rashes (6)
_____ Hemorrhoids (7)
_____ Bronchitis (8)
_____ Pneumonia (9)
_____ Ear infections (10)
_____ Eye infections (11)
_____ Glaucoma (12)
_____ Hypertension (13)
_____ Cancer (14)
_____ Heart disease (15)
_____ Tuberculosis (16)
_____ Varicose veins (17)
_____ Anemia (18)
_____ Mononucleosis (19)
_____ Diabetes (20)
_____ Thyroid disease (21)
_____ Epilepsy (22)
_____ Liver disease (23)
_____ Gallbladder disease (24)
_____ Kidney disease (25)
_____ Arthritis (26)
_____ Rheumatic fever (27)
_____ Alcoholism (28)
_____ Other (Specify) _____

_____

_____ (29)

APPENDIX B

SUMMARY OF HYPOTHESES TESTING USING ANOVA

Table 5

Summary of Hypotheses Testing
Using ANOVA

Hypothesis	Level of Probability
1	.2579
2	.0001
3	.4585
4	.0202
5	.0423
6	.0387
7	.1733
8	.5645
9	.1956
10	.9491
11	.5942
12	.7321
13	.4373